

S.No.	Lab Name	Class Name	Block	Faculty Incharge	Lab Technical Staff	Room Number
1	Computer Network Lab	III Year ( IT-A)	GBS	Mr. Sunil kumar Yadav	Mr. Pawan Nagar	102

S.No.	Lab Name	Software	Hardware Configuration	Description
1	Computer Network Lab	<ul style="list-style-type: none"> <li>• Windows 10</li> <li>• Ms Office</li> <li>• Turbo C++</li> <li>• Java</li> <li>• Python</li> <li>• Prolog</li> </ul>	Intel(R) Core(TM) i5-2400 CPU @ 3.10GHz	The lab offers an integrated educational process in the field of information and communication technologies emphasizing the issue of computer networks, their design, administration and management.

Exp. No.	Name of Experiment
1	Implementation of Stop and Wait Protocol and Sliding Window Protocol.
2	Study of Socket Programming and Client – Server model.
3	Write a code simulating ARP /RARP protocols.
4	Write a code simulating PING and TRACEROUTE commands.
5	Create a socket for HTTP for web page upload and download.
6	Write a program to implement RPC (Remote Procedure Call).
7	Implementation of Subnetting. Applications using TCP Sockets like,
8	a. Echo client and echo server. b. Chat. c. File Transfer.
9	Applications using TCP and UDP Sockets like d. DNS e. SNMP f. File Transfer.
10	Study of Network simulator (NS).and Simulation of Congestion Control Algorithms using NS.
11	Perform a case study about the different routing algorithms to select the network path with its optimum and economical during data transfer. i. Link State routing ii. Flooding iii. Distance vector.
12	To learn handling and configuration of networking hardware like RJ-45 connector, CAT-6 cable, crimping tool, etc.
13	Configuration of router, hub, switch etc. (using real devices or simulators).
14	Running and using services/commands like ping, traceroute, nslookup, arp, telnet, ftp, etc.
15	Network packet analysis using tools like Wireshark, tcpdump, etc.

16	Network simulation using tools like Cisco Packet Tracer, NetSim, OMNeT++, NS2, NS3, etc.
17	Socket programming using UDP and TCP (e.g., simple DNS, data & time client/server, echo client/server, iterative & concurrent servers).